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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/423,356	01/21/2000	HIDEKI KIRINO	HYAE:093	6645

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PARKHURST & WENDEL
1421 PRINCE STREET
SUITE 210
ALEXANDRIA, VA 22314-2805

EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/02/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/423,356

Applicant(s)

Hideki et al.

Examiner

Naghmeh Mehrpour

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 31, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 3-5, 8-9, 13, 15-17, 20-21,** are rejected under 35 U.S.C. 102(e) as being anticipated by Langlais (US Patent Number 6,091,932).

Regarding **Claims 1, 13**, Langlais teaches a transmission apparatus comprising:

a master station 6 transmitting audio by utilizing a first minute-power wave (See figure 1, col lines),

a slave station 11 transmitting audio/video by utilizing (col 7 lines 1-14); and

a relay station 12, location between the master station 6 and slave station 11 the master 6 and slave station 11 located apart from each other by a distance longer than the reachable range of a first minute-power wave. Langlais shows on figure 2, master station 6 is located a distance longer than the reachable range of the first minute-power wave (See figures 1-2, col 8 lines 25-37); wherein

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a transmission signal utilizing a first minute-power wave transmitted from the master station 74 comprising, in addition to original audio/video information (col 8 lines 25-37), slave station address information and master station 74 receiving information indicating a frequency at which the master station 74 receives a signal from the relay station 73 (see figure 6, col 9 lines 60-67, col 10 lines 1-10),

said relay station 73 modulates the master station 74 return frequency a demodulated portion of a first minute power wave as a return signal and for transmitting a return signal (col 10 lines 18-32), thereby establishing a return transmission path between the relay station 73 and the master station 74 the relay station 73 is modulating the frequency of a first minutes power wave received from the master-station 74 to a different frequency as for transmitting the second signal (See figures 8 col 10 lines 32-45), and

the slave station is for transmitting information of the relay station 73 receiving frequency at which the relay station 71 receives a signal from the slave station, the slave station is recognizing that transmission signal that is a signal directed to the slave station the slave station is modulating and transmitting a response audio/ video signal information and the relay station 72 frequency, thereby establishing a transmission path between the master station 74 and the slave station (See figure 6, col 9 lines 60-67, col 10 lines 1-10).

Regarding **Claims 3, 15**, Langlais teaches a transmission apparatus comprising:

a transmitter having an RF converter which generates a standard television signal (col 15 lines 59-67, col 16 lines 1-5),

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a receiver having an RF tuner which receives the standard television signal (col 12 lines 37-45),

available frequency detection means for detecting frequencies which can be used for video transmission (col 7 lines 1-7, col 20 lines 34-46), within the reception band of the RF tuner, in advance of use;

detected frequency registration means for registering the detected frequencies (col 8 lines 25-37), as a communication frequency list (col 10 lines 32-37, col 10 lines 58-67), in both of the transmitter and the receiver; and spread spectrum communication means for spreading the power spectrum by changing the frequency within the range of the communication frequency list (col 4 lines 41-61), and performing spread spectrum communication (See figure 2, col 5 lines 40-50).

Regarding **Claims 4, 16**, Langlais teaches a transmission power control means for automatically changing the transmission power during the communication in accordance with the use frequency band width so as to keep the power density per unit bandwidth constant (col 21 lines 24-40).

Regarding **Claims 5, 17**, Langlais teaches a transmission apparatus further comprising frequency changing mean; for changing the frequency during the communication, in synchronization with the synchronous timing of the video signal(col 5 lines 30-41, col 13 lines 2-9).

Regarding **Claims 8, 20**, Langlais teaches a transmission apparatus comprising: first and second transmission/reception apparatuses each comprising a transmission apparatus wherein frequency changing order control means for controlling the frequency changing order, during the communication, in such a manner that the frequency is changed in one direction, from the higher

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frequency to the lower frequency or from the lower frequency to the higher frequency, within the range of the communication frequency list, and when the frequency reaches the end of the frequency list, it is returned to the beginning of the frequency list (col 8 lines 29-53); and communication control means for controlling the first and second transmission/reception apparatuses to realize duplex communication, by using a frequency time table in which the first and second transmission/reception apparatuses always use different frequencies (col 1 lines 9-17, col 12 lines 4-12).

Regarding **Claims 9, 21**, Langlais teaches a transmission apparatus further comprising communication frequency list update means which uses the previously registered communication frequency list when stating the communication, and uses a second communication frequency list obtained by duplicating the registered communication frequency list after the communication has been started, and updates the second communication frequency list as desired by exchanging the result of communication, i.e., whether it is good or bad, between the first and second transmission/reception apparatuses (col 14 lines 24-40).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. **Claims 2, 6-7, 14, 18-19**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlais et al. (US Patent Number 6,091,932) in view of Oguro et al. (US Patent Number 6,282,366 B1).

Regarding **Claims 2, 6, 14, 18**, Langlais teaches a transmission apparatus as described further comprising control signal superposition and transmission means for transmitting a control signal by superposing it on the video signal in the blanking period, during the communication (col 2 lines 8-32). Langlais fails to teach that a transmission apparatus as described further comprising control signal superposition and transmission means for transmitting a control signal by superposing it on the video signal in the blanking period, during the communication. However Oguro teaches a method of transmitting a control signal by superposing it on the video signal in the blanking period, during the communication (col 3 lines 25-30). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combined Oguro system that superposing audio signals to a vertical blanking period of the video signal with Langlais wireless video system, in order to reduce the interference in a communication system with plurality of wireless video terminals.

Regarding **Claims 7, 19**, Langlais teaches a transmission apparatus wherein: a transmission signal in the forward path from the master station 6 to the slave station 11 (col 7 lines 1-26, col 8 lines 10-17). Langlais teaches a PCM audio signal and the information indicating the address of the slave station 11 and the reception frequency specified by the slave-station 11 (see figures 6, numeral 73, figure 9). Langlais fails to teach that the information are superposed on a audio

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signal during the vertical blanking period of the video signal. However Oguro teaches a method of recording of digital audio and video that a PCM audio signal (col 18 lines 39-43) and the information indicating the address of the slave station and the reception frequency are superposed on a video signal during the vertical blanking period of the video signal (col 3 lines 25-30).

Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combined Oguro system that superposing audio signals to a vertical blanking period of the video signal with Langlais wireless video system, in order to improve the performance of plurality of wireless video terminals.

5. **Claims 10-12, 22-24**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlais et al. (US Patent Number 6,091,932) in view of Matsuda et al. (US Patent Number 6,282,366 B1).

Regarding **claims 10, 22**, Langlais fails to teach transmission apparatus comprising : ID storage means for storing an identification number which is given to the transmission apparatus during manufacture; and ID inquiry and registration means for performing mutual inquiry of IDs with another transmission apparatus which is permitted to have communication in advance of use, and registering the ID. However Matsuda teaches transmission apparatus further comprising: ID storage means for storing an identification number which is given to the transmission apparatus during manufacture; and ID inquiry and registration means for performing mutual inquiry of IDs with another transmission apparatus which is permitted to have communication in advance of use, and registering the ID (Col 9 lines 27-46).

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Regarding **Claims 11, 23**, Langlais fails to teach a transmission apparatus further comprising: frequency setting means which always executes the reception mode in advance of the transmission mode to detect the frequency time tables of all other transmission apparatuses which are performing transmission within the game wave area, and performs transmission by using a frequency time table the use frequency of which is always different from those of these other transmission apparatuses; and retransmission means for performing retransmission by using a frequency time table different from said frequency time table when a transmission signal from another apparatus which has requested communication cannot be detected even when a predetermined period of time has passed after starting the transmission mode, and communication signal from another terminal cannot be detected when a predetermined period has passed. However Matsuda teaches a transmission apparatus further comprising: frequency setting means which always executes the reception mode in advance of the transmission mode to detect the frequency time tables of all other transmission apparatuses which are performing transmission within the game wave area, and performs transmission by using a frequency time table the use frequency of which is always different from those of these other transmission apparatuses (col 8 lines 29-47); and retransmission means for performing retransmission by using a frequency time table different from said frequency time table when a transmission signal from another apparatus which has requested communication cannot be detected even when a predetermined period of time has passed after starting the transmission mode (col 7 lines 34-62). Matsuda does not mention that communication signal from another terminal cannot be detected

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when a predetermined period has passed. However Matsuda mentioned that due to movement of the wireless video terminal from the zone 18 A the zone 18B, the wireless terminal can not can not receive a signal which is transmitted by the base station for Video data controlling the zone 18A (col 10 lines 29-67). Therefore Matsuda inherently teaches that requested communication from other terminals cannot be detected if the predetermined time is passed. Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to combine Langlais with Matsuda system which changing frequency within the range of frequency list, in order to improve the performance of the wireless video system.

Regarding **Claims 12, 24**, Langlais fails to teach a transmission apparatus further comprising output stop means for stopping output of the original information such as audio, when the ID which is permitted to have communication cannot be confirmed in the reception mode. However Matsuda teaches a transmission apparatus further comprising output stop means for stopping output of the original information such as audio, when the ID which is permitted to have communication cannot be confirmed in the reception mode (col 13 lines 57-67, col 14 lines 1-29). Therefore, it would have been obvious to ordinary skill in the art at the time the invention was made to use above teaching, in order to provide a wireless video system which performance with no interference.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

7. Any responses to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications indented for entry)

Or:

(703) 308-6306, (for informal or draft communications, please label

“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to Crystal Park II. 2121 Crystal Drive, Arlington. Va., sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Melody Mehrpour whose telephone number is (703) 308-7159. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 6:30 a.m. to 5:00 p.m.

If attempt to reach the examiner are unsuccessful the examiner's supervisor, Edward F. Urban can be reached (703)305-4385.

NM

June 25, 2003



**WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**